

WASHINGTON STATE DEPARTMENT OF HEALTH
CHARS 2009 Full Year Data Release
ANALYSIS OF DATA VARIABLES

OBSERVATION DISCHARGE DATA NOTES:

Observation Stays

When CHARS was first developed there were basically two types of patients: inpatients and outpatients including emergency department. Since that time, however, a third category of patients has come into being, and has grown. These are known as “observation” patients. Some observation patients may be similar to outpatients in that their lengths of stay at the hospital can be measured in hours. Other observation patients are more like inpatients; their lengths of stay can be a full day – or longer. Up until May 2007 CHARS only collected data on inpatients. Observation patients with lengths of stay exceeding a day or more were previously not reported to CHARS. This situation becomes even more concerning because the designation of a patient as either an inpatient or an observation patient is based upon each patient’s payer’s criteria. Hence, one patient may be deemed an inpatient by their payer and have their data reported to CHARS, while another patient with exactly the same clinic conditions and treatments – but with a different payer – may be deemed an observation patient and did not have their data reported to CHARS in the past.

If a patient is first admitted to observation and is later transferred to inpatient, then the information for both time periods should be submitted into one combined record, so there should not be duplication.

The data for inpatient and observation are available in separate files. A description of the file names is listed at the end of this document. Observation stays differ from inpatient in a few ways:

- HCPCS codes and day of service are reported in the revenue file.
- Not Generated for Observation
- MS-DRG or MDC
- Case-Mix
- Outlier
- Excluded

Notes from Hospitals:

Ocean Beach Hospitals was not able to submit October 2009 Observation records in time for us to include them in the 2009 dataset.

Missing

Records 17

Dollar amount \$116,731.44

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Pubo2009 Field Names in order

Order	Field Name	Order	Field Name	Order	Field Name	Order	Field Name
1	SEQ_NO	21	PAYER1	43	PROCCNT	64	DRG
2	REC_KEY	22	PAYER2	44	PROC1	65	MDC
3	STAYTYPE	23	PAYER3	45	PROC2	66	AVG_LOS
4	HOSPITAL	24	DIAGCNT	46	PROC3	67	DRG_WT
5	LINENO	25	DIAG1	47	PROC4	68	OUTLIER
6	ZIPCODE	26	DIAG2	48	PROC5	69	EXCLUDE
7	STATERES	27	DIAG3	49	PROC6	70	DRG_FWD
8	COUNTRYRES	28	DIAG4	50	PRDAY1	71	MDC_FWD
9	COUNTRY	29	DIAG5	51	PRDAY2	72	ECODECNT
10	AGE	30	DIAG6	52	PRDAY3	73	ECODE1
11	SEX	31	DIAG7	53	PRDAY4	74	POAE1
12	ADM_HR	32	DIAG8	54	PRDAY5	75	ECODECAL
13	DIS_DATE	33	DIAG9	55	PRDAY6	76	DRG2
14	DIS_HR	34	POA1	56	IDATTEND	77	DRG_WT2
15	LENSTAYD	35	POA2	57	IDATT_S	78	HISPANIC
16	LENSTAYH	36	POA3	58	IDOPERAT	79	RACE_WHT
17	ADM_TYPE	37	POA4	59	IDOPER_S	80	RACE_BLK
18	ADM_SRC	38	POA5	60	IDOTHER1	81	RACE_AMI
19	STATUS	39	POA6	61	IDOTH1_S	82	RACE_ASI
20	CHARGES	40	POA7	62	IDOTHER2	83	RACE_HAW
		41	POA8	63	IDOTH2_S	84	DRG_POA
		42	POA9			85	MDC_POA

NOTES FOR EVERY DATA ELEMENT

SEQUENCE NUMBER

There are 86,484 sequence numbers in order starting with 2009652877 and ending with 2009739360.

RECORD KEY

There are no values out of range or missing. All discharges were submitted in the UB04 format.

STAY TYPES

There are no values out of range or missing. (2 = Observation)

HOSPITAL

There are no values out of range or missing. 90 hospitals have data with 991 out of 1080 possible months reported.

LINENO

There are no values out of range or missing. The range is two (the minimum) with 922 records and the largest is 183 with one record.

ZIP CODE

There are 79 values out of range or missing and these are because the country code is used. The country information is reported in the Country column. There were 5 records with 99998 (Homeless) and 14 had 99999 (Unknown) for zip code.

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STATE RESIDENCE

There are 93 records with value (XX), either because the patient was from outside the United States or the zip code was 99998 – homeless or 99999 – unknown or in error. Those in error appear on the respective hospitals errors to be corrected list but were not corrected. The rest of the values are all valid state codes.

COUNTY RESIDENCE

There are 3,515 records with no value (00) because the zip code was outside Washington State. There are 5 records with value of 99 or unknown.

COUNTRY CODE

There are 83,00 records with no value because the patient was from inside the United States. There are 4 records with US, there are valid zip codes for these.

AGE

There are no values missing; two were greater than 107.

SEX

There are no values missing; none are “U” or unknown.

SEX	Disch	Pat Days	Charges	Stay	\$ per Stay	\$ per Day
F	53,562	69,569	431,832,439.60	1.30	8,062.29	6,207.25
M	32,922	42,940	338,784,895.68	1.30	10,290.53	7,889.73

ADMISSION HOUR

There are no values out of range or missing. Two hospitals seem to default a large portion of their admission hour to Hour 00 and another to hour 03.

DISCHARGE DATE

There are no values out of range or missing.

DIS DATE	Days	Disch	Pat Days	Charges	Average			Avg per Day in Mo
					Stay	\$ per Stay	\$ per Day	Disch
01/2009	31	7,380	9,562	61,673,134.66	1.30	8,356.79	6,449.82	238.06
02/2009	28	6,894	8,924	58,051,526.42	1.29	8,420.59	6,505.10	246.21
03/2009	31	7,393	9,966	62,896,966.53	1.35	8,507.64	6,311.15	238.48
04/2009	30	7,341	9,396	65,462,813.86	1.28	8,917.42	6,967.09	244.70
05/2009	31	6,958	8,747	62,097,097.15	1.26	8,924.56	7,099.25	224.45
06/2009	30	6,993	9,398	62,829,192.51	1.34	8,984.58	6,685.38	233.10
07/2009	31	7,712	9,794	70,655,375.17	1.27	9,161.74	7,214.15	248.77
08/2009	31	7,674	9,858	69,375,248.96	1.28	9,040.30	7,037.46	247.55
09/2009	30	7,418	9,529	66,502,301.34	1.28	8,964.99	6,978.94	247.27
10/2009	31	7,383	9,630	69,613,840.59	1.30	9,428.94	7,228.85	238.16
11/2009	30	6,175	8,179	54,968,529.99	1.32	8,901.79	6,720.69	205.83
12/2009	31	7,163	9,526	66,491,308.10	1.33	9,282.61	6,979.98	231.06
Totals	365	86,484	112,509	770,617,335.28	1.30	8,910.52	6,849.38	236.94

DISCHARGE HOUR

There are no values out of range or missing. Three hospitals seem to default a portion of their discharges to Hour 00 or 01. The hour with the most volume is hour 15.

LENGTH OF STAY - DAYS

There are no values missing. There are 264 records with stays longer than seven days.

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LENGTH OF STAY - HOURS

Of the data reported there are 2,335 out of range values (zero hours). There are discharges with negative hours that we changed to null. This is caused because some hospitals default to hour 00 or 01 for discharge hour which is earlier than the admission hour. Hours of more than 140 are not shown.

ADMIT TYPE

There are no values missing or out of range. Of those reported there are 2,562 out of range values. We are working with hospitals on this issue.

ADMIT SOURCE

There are no values missing. Of those reported there are no out of range values.

DISCHARGE STATUS

There are no values missing and there are no out of range values.

CHARGES

There are no total Charges where the value is zero. There are 67 records where the charges are more than \$100,000. There are 8,675 records with less than \$1,000 in charges.

PAYER 1

There are no values out of range.

PAYER 2

There are 62,460 with no value which is normal. Of those reported there are no out of range values.

PAYER 3

There are 84,944 with no value which is normal. Of those reported there are no out of range values.

DIAGNOSIS CODE COUNT (DIAGCNT)

There are 32 discharges missing a diagnosis code.

DIAGNOSES CODES – PRINCIPAL AND OTHER (DIAG1-DIAG9)

There are 32 values missing. There are invalid codes in this field. We do not edit this field for valid ICD-9 codes.

NOTE: There is a separate table called C or SDIAGo2009 that has all the diagnosis codes (up to 25) in the same sequence that they were reported to us.

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PRESENT ON ADMISSION–PRINCIPAL DIAGNOSIS & OTHER (POA1-POA9)

There are 82,971 values missing in the principal diagnosis field POA; there are POA values for “other” diagnosis codes. NOTE: There is a separate table called C or SDIAGo2009 that has all the POA codes (up to 25) in the same sequence that they were reported to us.

PROCEDURE CODE COUNT (PROCCNT)

There are 53,942 with a value of zero which is normal. Of those reported there are no out of range values.

PROCEDURES CODES (PROC1-PROC6)

There are 71,292 records which do not have a procedure code. This is normal. Further analysis is inconclusive without access to individual patient medical records. NOTE: There is a separate table called C or SPPROCo2009 that has all the procedure codes (up to 25) in the same sequence that they were reported to us.

PROCEDURES DAY (PRDAY1-PRDAY6)

There are 71,292 records which do not have a procedure day which matches with no procedure code. There are 48 records where the day was not able to be calculated (0000). NOTE: There is a separate table called C or SPPROCo2009 that has all the procedure day (up to 25) in the same sequence that they were reported to us.

ATTENDING PHYSICIAN

There are 2 records which does not have an identification code. These are uncorrected errors and appeared on the respective hospitals errors to be corrected list but were not corrected. There are no other missing values. There are values which are not valid identification codes.

ATTENDING PHYSICIAN – SOURCE

There are 2 discharge with no value and 31 unknown sources.

OPERATING PHYSICIAN

There are 59,574 discharges with no value. This is normal. There are values which are not valid identification codes.

OPERATING PHYSICIAN - SOURCE

There are 59,574 discharges with no value and 1 with unknown sources.

OTHER PROVIDER - 1

There are 73,986 discharges with no value. This is normal.

OTHER PROVIDER – 1 - SOURCE

There are 73,987 discharges with no value and 0 unknown sources.

OTHER PROVIDER - 2

There are 81,033 discharges with no value. This is normal.

OTHER PROVIDER – 2 - SOURCE

There are 81,573 discharges with no value and 0 unknown sources.

DRG – DATE SENSITIVE (DRG)

This field is not calculated for Observation Stays

MDC – DATE SENSITIVE (MDC)

This field is not calculated for Observation Stays

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AVERAGE LENGTH OF STAY—calculated using forward mapped MS-DRG

This field is not calculated for Observation Stays

DIAGNOSIS RELATED GROUP WEIGHT—calculated using forward mapped MS-DRG

This field is not calculated for Observation Stays

OUTLIER—calculated using forward mapped MS-DRG

This field is not calculated for Observation Stays

EXCLUDE—calculated using forward mapped MS-DRG

This field is not calculated for Observation Stays

DRG – FORWARD MAPPED

This field is not calculated for Observation Stays

MDC – FORWARD MAPPED

This field is not calculated for Observation Stays

EXTERNAL CAUSE OF INJURY CODE COUNT (ECODECNT)

There are 57,273 records with no value which is normal. Of those reported there are no out of range values.

EXTERNAL CAUSE OF INJURY CODE (ECODE1)

There are 76,180 discharges with no value. This is normal. NOTE: There is a separate table called C or SECODOE2009 that has all the ECODES (up to 8) in the same sequence that they were reported to us.

PRESENT ON ADMISSION – E-CODE (POAE1)

There are 84,662 discharges with no value. NOTE: There is a separate table called C or SECODOE2009 that has all the ECODES (up to 8) in the same sequence that they were reported to us.

EXTERNAL CAUSE OF INJURY CODE - DOH CALCULATED

There are 75,772 discharges with no value. These values are calculated by DOH staff based on the diagnosis codes.

DIAGNOSIS RELATED GROUP – 2

No Longer used after 2002

DIAGNOSIS RELATED GROUP – 2 - WEIGHT

No Longer used after 2002

HISPANIC

WHITE

BLACK

AMERICAN INDIAN

ASIAN

HAWIAN PACIFIC ISLANDER

2009 Hispanic and Race Count Summary											
HISPANIC	Cnt	WHT	Cnt	BLK	Cnt	AMI	Cnt	ASI	Cnt	HAW	Cnt
Null	302		302		302		302		302		302
N	50,508	N	8,703	N	61,785	N	63,056	N	62,721	N	61,229
R	411	R	701	R	701	R	701	R	701	R	701
U	30,508	U	21,084	U	21,084	U	21,084	U	21,084	U	21,084
Y	4,755	Y	55,694	Y	2,612	Y	1,341	Y	1,676	Y	3,168
Totals	86,484		86,484		86,484		86,484		86,484		86,484
U%	35.28%		24.38%		24.38%		24.38%		24.38%		24.38%
Y%	5.5%		64.4%		3.0%		1.6%		1.9%		3.7%

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SUBSIDIARY TABLES

DIAGNOSIS CODE TABLE INFORMATION (SDIAGo2009 or CDIAGo2009)

There are 488,804 diagnosis codes for the 86,484 discharges for an average of 5.6 per discharge. There are 32 discharges with no diagnosis.

PROCEDURE CODE TABLE INFORMATION (SPPROCo2009 or CPPROCo2009)

There are 25,417 procedure codes for the 86,484 discharges for an average of .29 per discharge.

ECODE TABLE INFORMATION (SECODEo2009 or CECODEo2009)

There are 12,712 Ecodes for the 86,484 discharges for an average of .15 per discharge.

REVENUE CODE TABLE INFORMATION (SREVo2009 or CREVo2009)

Fields are edited for presence of values and validity of value according to the CHARS system revenue tables. Further analysis is inconclusive without access to individual patient medical records.

There are 1,719,232 revenue codes for the 86,484 discharges or an average of 19.8 per discharge.